cIEF Data in a Snap.

Identity and Charge Heterogeneity

Meet Maurice C.™

He runs cIEF applications on your mAbs, ADCs, and vaccines faster than anything out there. We're talking 10 minutes per sample and method development in a day. He'll even give you data on their charge variants. Already use an iCE system? Method transfer to Maurice is a breeze!

FIGURE 1. Just add anolyte and catholyte to a cIEF cartridge and pop it in Maurice. Then drop in your sample vials or a 96-well plate, and hit start — he does the rest!
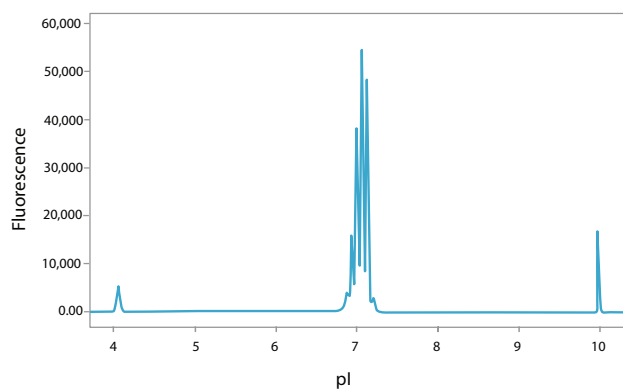

FIGURE 2. Charge profile of mAb. 0.25 mg/mL mAb prepared with 4% 3–10 Pharmalyte, 10 mM arginine, iminodiacteic acid (IDA) and 2 M urea, pI markers 4.05 and 9.99. Pre-focused at 1500 V for 1 min followed by focusing for 7 min at 3000 V.

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More iCE

Maurice uses iCE technology for his cIEF methods. Translation? You get crazy reliable and reproducible data day in and day out with single-digit CVs, and resolution that trumps HPLC. Here's where he really ups the ante: he gives you absorbance and native fluorescence data on every sample so you can analyze unmodified molecules with sensitivity down to 0.7 µg/mL!
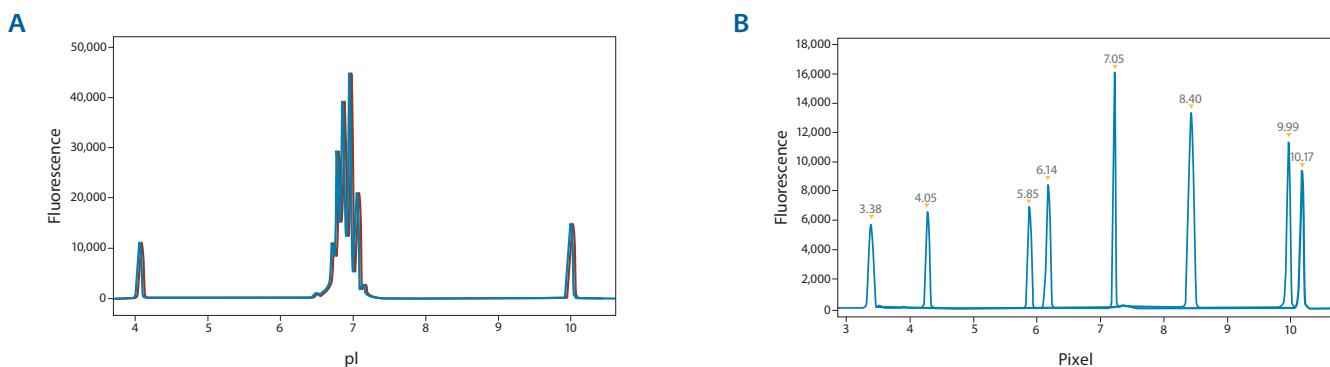
A

B

FIGURE 3. (A) cIEF application performance over 100 injections with peak area CVs consistently less than 4%. 0.25 mg/mL mAb prepared with 4% 3–10 Pharmalyte, 10 mM arginine and iminodiacteic acid, pI markers 4.05 and 9.99. (B) Six overlaid injections of peptide markers at 0.0015-0.003 mg/mL, 4% 3–10 Pharmalyte, 10 mM arginine and iminodiacteic acid, with flanking pI markers 3.38 and 10.17.

SPECIFICATIONS

DESCRIPTION	cIEF SPECIFICATION
Minimum Sample Volume	50 µL
Sample Delivery	Vacuum
Typical Separation Time	6–10 min (molecule-dependent)
Detection Capability	UV Absorbance at 280 nm, Fluorescence: Ex 280 nm, Em 320–450 nm
Typical Voltage	Pre-focusing: 1500 V, focusing: 3000 V
Sample Injections per Cartridge	100
Maximum Sample Injections per Batch	100 guaranteed, 200 maximum
pI Range	2.85–10.45
pI CV	1%
CV for Peaks >10% Composition	≤5% (Intra-batch), ≤6% (Inter-batch)
pI Resolution	0.05 pI units (for wide range 3–10 ampholytes)
Dynamic Range	2 logs
Linearity	>0.995
Sensitivity (LOD)	0.7 µg/mL (Native fluorescence) 3.0 µg/mL (Absorbance) (Values based on a monoclonal antibody)
Sample Tray Options	96-well plates or 48 vials
Dimensions	44cm H x 42cm W x 61cm D
Weight	46 kg (100 lb)

Maurice C: part #090-002